Curriculum Vitae: David G Tarboton
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web site)

Current Position:
Professor, Utah Water Research Laboratory and Department of Civil and Environmental
Engineering, Utah State University. Also Adjunct Professor in Watershed Science Unit,
College of Natural Resources.

Education:
Sc.D., Civil Engineering (Water Resources and Hydrology), Massachusetts Institute of
Technology, September 1989.
M.S., Civil Engineering, Massachusetts Institute of Technology, May 1987.
Diploma in Datametrics, (Computer Science), University of South Africa, December 1984.
B.Sc Eng, Civil Engineering, University of Natal, Durban, South Africa, December 1981.

Experience:
November 1997 to June 1998, Visiting scientist at the National Institute for Water and
Atmospheric Research, Christchurch, New Zealand, while on sabbatical leave from Utah
State University.
February 1990 to Present, Assistant then Associate Professor, Utah Water Research Laboratory
and Department of Civil and Environmental Engineering, Utah State University.
September-December 1989, Post Doctoral Associate, Department of Civil Engineering,
Massachusetts Institute of Technology, (Taught graduate level course, Numerical Modeling
of Physical Systems).
January 1984 - August 1985, Research Officer, National Institute for Transport and Road
Research, Pretoria, South Africa. (Research on Pavement Management Systems)
January 1982 - December 1983, Civil Engineering Officer in S.A. Navy.

Professional Society Memberships:
American Geophysical Union (1986 - present).
American Society of Civil Engineers (1988 - present).
American Water Resources Association (1990 - present)
Registered Professional Engineer (Utah).

Research Interests:
- Spatially distributed hydrologic modeling
- Applying digital elevation data and GIS in Hydrology
- Stochastic hydrology using nonparametric techniques
- Snow hydrology
- Geomorphology, Landform evolution and channel networks
- Terrain stability mapping and stream sediment inputs

Research Grants:

National Weather Service, COMET outreach program, Online Instructional Module on Rainfall Runoff Modeling , $35,000, **D G Tarboton**, C Hult, M Zachry, D Brandon, September 2001 to September 2002.

U.S. Geological Survey, Development of a GIS-Based Approach for Better Statewide Water Use Estimation, $275,000, M McKee, **D G Tarboton**, L Austin, H Hadley, September 2000 to September 2002.

Whatcom County, WRIA 1 Watershed Management Project Phase II, $1,000,000, T Hardy, M McKee, D Stevens, **D G Tarboton**, M Kemblowski, J Kaluarachchi, D Sorenson, July 2000 to December 2000.

U.S. Geological Survey, Source Water Protection Assessment Tools Development, $204,372, D Sorenson, R Sims, J Sims, J Kaluarachchi, M Kemblowski, **D. G. Tarboton**, U Lall, R Dupont, July 1999 to June 2000.

USDA Quantifying the Exposure of Streams to Sediment Inputs From Managed Forests, A Risk-Based Approach, $270,000, R. T. Pack, **D. G. Tarboton**, L Benda, 1999 to 2002.

INEEL, Development of a User Driven Decision Support System for Water Availability and Quality Management, $2 275 000, U. Lall, D. Stevens, R. Price, **D. G. Tarboton**, J. Kaluarachchi, Q. Weninger, T. Glover, G Urroz, 1997 to 2000.

National Aeronautical and Space Administration, Snow Hydrology: The parameterization of subgrid processes within a physically based snow energy and mass balance model, $163 000, **D. G. Tarboton**, K Elder, D. Cline, C. Luce, 1998 – 2001.

National Aeronautical and Space Administration, Investigation of Physical Process Dynamics during Cold Season Flooding, $36 000, M. Seyfried, P. Dawson, G. Flerchinger, C. Hanson, J. McNamara and **D. G. Tarboton**, 1998-2001.

National Science Foundation, International programs division, Spatially Distributed Hydrologic Models and Spatial Patterns, Cooperative project travel funds for sabbatical in New Zealand, $13 900, **D. G. Tarboton**, 1997 to 1998

USGS, Biogeochemical Research at the Noland Divide Watershed, Great Smoky Mountains National Park, $100,503 (USU portion), H. Van Miegroet, **D. G. Tarboton**, N Nicholas, I Creed, 1997 to 2000

Forest Renewal of British Columbia, Improvements of Terrain Stability Classification Methods using a DEM-derived stability index, $139 659, R. T. Pack and **D. G. Tarboton**, 1997-1998.

National Science Foundation/EPA, Scaling up Spatially Distributed Hydrologic Models of Semi-Arid Watersheds, **Tarboton, D. G.**, C. M. U. Neale, Keith R. Cooley, Mark S. Seyfried, G. Flerchinger, C. Hanson, C. W. Slaughter, 1995-1998, $330,000.

National Science Foundation, Geomorphological Processes, Scale and the Evolution of Fluvial Landforms, $44,204, **D.G. Tarboton**, 1994-1995.

U.S. Geological Survey, A Spatially Distributed Water Balance based on Physical, Isotopic and Airborne Remotely Sensed Data, $350,000, C.M.U. Neale, **D. G. Tarboton**, J. J. McDonnell, 1991 to 1994.

U.S. Geological Survey, Non-parametric stochastic simulation of streamflow in the Colorado River, $200,000, **D. G. Tarboton**, U. Lall, 1992 to 1995.

USU Faculty research grant, Snowmelt energy balance, the turbulent fluxes, $12,000, **D.G. Tarboton**, 1992-1993.

U.S. Forest Service, Development of Mountain Climate Generator and Snowpack Model for Erosion Predictions in the Western United States using WEPP, $700,000, D. S. Bowles, U. Lall, G. Bingham, **D. G. Tarboton**, 1991 to 1996. (My role in this was development of the snowmelt component.)

U.S. Geological Survey, Coping with Severe Sustained Drought in the Southwestern United States, $430,000, L. D. James, F. Gregg, **D. G. Tarboton**, D. R. Kendall, B. Harding, H. J. Vaux, D. T. Patten, T. C. Modde, R. S. Krannich, D. H. Getches, 1990 to 1993. (My role in this was the hydrology and consisted of identification of drought scenario's for analysis based on tree ring data and statistical disaggregation of these to give source inflows for the Colorado River System Simulation model.)

USU Faculty research grant, Distributed hydrologic modeling using digital topographic and geographic data, $15,000, **D.G. Tarboton**, 1990-1992.

Teaching:

At Utah State University:

CEE743, Stochastic Hydrology, Spring 2002.

CEE644, GIS in Water Resources, Fall 1999-2001. Mentored USU students in online class taught by Maidment at University of Texas.

CEE640, Physical Hydrology, Graduate level, Fall, 1994-1996, Fall 1998-2001.

CEE343, Engineering Hydrology, Junior level basic hydrology, Spring, 1991-1994, Fall 1995-1996, Spring 1999.

ENG103, Digital Computer Utilization, Winter, 1995-1997.

CEE641, Surface Runoff Hydrology, Winter, 1996.

CEE646, Hydrologic Time Series Analysis, Graduate level, Winter, 1990-1994.

CEE645, Hydrologic Modeling, Graduate level, Spring, 1994.

CEE746, Advanced topics in Hydrology, Fractals and Scaling. Advanced graduate level, Fall, 1992.

HON250, Introduction to Earth Systems Science, Freshman/sophomore level, Winter, 1992 (one of 6 faculty that team taught this)

WS405, Climate hydrologic interactions, Spring 1992 (one of 6 faculty that team taught this)

At MIT:

1.121, Numerical Modeling of Physical Systems, Fall 1989.

Professional Activities

Associate Editor for Water Resources Research, November 1998 - present

Invited participant in U.S. Army Symposium on Hydrologic Modeling of Diverse Regions with Sparse and Uncertain Data, November 8-9, 1999, Vicksburg Mississippi.

Reviewer for the following Journals:

Water Resources Research, Journal of Hydrology, Advances in Water Resources, Journal of Climate, ASCE Journal of Water Resources Planning and Management, Journal of Geophysical Research, Water Resources Bulletin, Geological Society of America Bulletin, Earth Surface Processes and Landforms.

Received editors citation for excellence in reviewing, Water Resources Research, 1993.

Proposal reviewer for:

National Science Foundation, National Oceanic and Atmospheric Administration, National Space Administration, Environmental Protection Agency.

Member of U.S. Environmental Protection Agency Global Change for Aquatic Ecosystems panel, July 2001.

Member of U.S. Environmental Protection Agency Aquatic Ecosystems Classification and Reference Conditions panel, July 2000.

Member of U.S. Enironmental Protection Agency Competitive Graduate Environmental Study Fellowships panel, March 1999.

Member of U.S. Environmental Protection Agency regional ecosystems review panel, June 1996.

Member of National Oceanic and Atmospheric Administration, Land Surface Processes review panel, 1992.

American Geophysical Union Hydrology Section Surface Water committee.

Organized special session on Precipitation in topographically diverse regions, Fall 1991.
Organized special session on Snow Hydrology, Fall 1993.
Deputy chair 1994-1996.
Chair 1996-1998.

American Water Resources Association

Technical program committee for the AWRA 1995 spring symposium

Consulting

Landslide hazard mapping based on slope and contributing area, for Terratech, British Columbia, 1996.

Streamflow modeling for Idaho Power Company. Lower Salmon falls hydropower plant re-licensing, 1995.

Refereed Publications:

Van Miegroet, H., I. F. Creed, N. S. Nicholas, D. G. Tarboton, K. L. Webster, J. Schubzda, B. Robinson, J. Smoot, D. W. Johnson, S. E. Lindberg, G. Lovett, S. Nodvin and S. Moore, (2001), "Is There Synchronicity in Nitrogen Input and Output at the Noland Divide Watershed, a Small N-Saturated Forested Catchment in the Great Smoky Mountains National Park," TheScientificWorld, 1(S2): 480-492, http://www.thescientificworld.com.

Prasad, R., D. G. Tarboton, G. E. Liston, C. H. Luce and M. S. Seyfried, (2001), "Testing a Blowing Snow Model Against Distributed Snow Measurements at Upper Sheep Creek, Idaho, USA," Water Resources Research, 37(5): 1341-1356.

Tarboton, D. G., G. Blöschl, K. Cooley, R. Kirnbauer and C. Luce, (2000), "Spatial Snow Cover Processes at Kühtai and Reynolds Creek," Chapter 7 in Spatial Patterns in Catchment Hydrology: Observations and Modelling, Edited by R. Grayson and G. Blöschl, Cambridge University Press, Cambridge, p.158-186.

Artan, G. A., C. M. U. Neale and D. G. Tarboton, (2000), "Characteristic length scale of input

data in distributed models: implications for modeling grid size," <u>Journal of Hydrology</u>, 221(1-4): 128-139.

Luce, C. H., D. G. Tarboton and K. R. Cooley, (1999), "Subgrid Parameterization Of Snow Distribution For An Energy And Mass Balance Snow Cover Model," <u>Hydrological Processes</u>, 13: 1921-1933, special issue from International Conference on Snow Hydrology, Brownsville, Vermont, 6-9 October, 1998.

Williams, K. S. and D. G. Tarboton, (1999), "The ABC's of Snowmelt: A Topographically Factorized Energy Component Snowmelt Model," <u>Hydrological Processes</u>, 13: 1905-1920, special issue from International Conference on Snow Hydrology, Brownsville, Vermont, 6-9 October, 1998.

Luce, C. H., D. G. Tarboton and K. R. Cooley, (1998), "The Influence of the Spatial Distribution of Snow on Basin-Averaged Snowmelt," <u>Hydrological Processes</u>, 12(10-11): 1671-1683.

Sharma, A., U. Lall and D. G. Tarboton, (1998), "Kernel Bandwidth Selection for a First Order Nonparametric Streamflow Simulation Model," <u>Stochastic Hydrology and Hydraulics</u>, 12(1): 33-52.

Tarboton, D. G., A. Sharma and U. Lall, (1998), "Disaggregation Procedures for Stochastic Hydrology based on Nonparametric Density Estimation," <u>Water Resources Research</u>, 34(1): 107-119.

Rajagopalan, B., U. Lall and D. G. Tarboton, (1997), "Evaluation of Kernel Density estimation methods for Daily Precipitation Resampling," <u>Stochastic Hydrology and Hydraulics</u>, 11(6): 523-547.

Sharma, A., D. G. Tarboton and U. Lall, (1997), "Streamflow Simulation: A Nonparametric Approach," <u>Water Resources Research</u>, 33(2): 291-308.

Tarboton, D. G., (1997), "A New Method for the Determination of Flow Directions and Contributing Areas in Grid Digital Elevation Models," <u>Water Resources Research</u>, 33(2): 309-319.

Rajagopalan, B., U. Lall, D. G. Tarboton and D. S. Bowles, (1997), "Multivariate Nonparametric Resampling Scheme for Generation of Daily Weather Variables," <u>Stochastic Hydrology and Hydraulics</u>, 11(1): 65-93.

Rigon, R., I. Rodriguez-Iturbe, A. Maritan, A. Giacometti, D. Tarboton and A. Rinaldo, (1996), "On Hack's Law," <u>Water Resources Research</u>, 32(11): 3367-3374.

Rajagopalan, B., U. Lall and D. G. Tarboton, (1996), "A Nonhomogeneous Markov Model for Daily Precipitation," <u>Journal of Hydrologic Engineering</u>, 1(1): 33-40.

Lall, U., B. Rajagopalan and D. G. Tarboton, (1996), "A Nonparametric Wet/Dry Spell Model for Resampling Daily Precipitation," <u>Water Resources Research</u>, 32(9): 2803-2823.

Tarboton, D. G., (1996), "Fractal River Networks, Hortons laws and Tokunaga cyclicity," Journal of Hydrology, 187(1/2): 105-117.

Tarboton, D. G., (1995), "Hydrologic Scenarios for Severe Sustained Drought in the Southwestern United States," <u>Water Resources Bulletin</u>, 31(5): 803-813.

Unnikrishna, P. V., J. J. McDonnell, D. G. Tarboton and C. Kendall, 1995, "Isotopic analysis of hydrologic processes in a small semiarid catchment," in Proceedings of IAHS/IAMAS Symposium and workshop "Comparison of tracer technologies for hydrological systems", July 3-14, Boulder, CO.

Tarboton, D. G., T. G. Chowdhury and T. H. Jackson, (1995),"A Spatially Distributed Energy Balance Snowmelt Model," in Biogeochemistry of Seasonally Snow-Covered Catchments,

ed. K. A. Tonnessen et al., Proceedings of a Boulder Symposium, July 3-14, IAHS Publ. no. 228, 141-155.

Tarboton, D. G., (1994), "The Source Hydrology of Severe Sustained Drought in the Southwestern United States," Journal of Hydrology, 161: 31-69.

Rajagopalan, B. and D. G. Tarboton, (1993), "Understanding complexity in the structure of rainfall," Fractals, 1(3): 606-616.

Tarboton, D. G., R. L. Bras and I. Rodriguez-Iturbe, (1992), "A physical basis for drainage density," Geomorphology, 5(1/2): 59-76.

Rodriguez-Iturbe, I., E. J. Ijjasz-Vasquez, R. L. Bras and D. G. Tarboton (1992). "Power-law distributions of mass and energy in river basins." Water Resources Research 28(4): 1089-1093.

Tarboton, D. G., R. L. Bras and I. Rodriguez-Iturbe, (1991), "On the Extraction of Channel Networks from Digital Elevation Data," Hydrologic Processes, 5(1): 81-100. (Also reprinted in Terrain Analysis and Distributed Modeling in Hydrology, Edited by K. J. Beven and I. D. Moore, John Wiley & Sons, 1993, p.85-104.)

Tarboton, D. G., R. L. Bras and I. Rodriguez-Iturbe, (1990), Comment on "On the Fractal Dimension of Stream Networks, La Barbera and Rosso, (1989), Water Resources Research, 25(4).", Water Resources Research., 26(9): 2243-2244.

Tarboton D. G., R. L. Bras and I. Rodriguez-Iturbe, (1989), Scaling and elevation in river networks, Water Resources Research 25(9):2037-2051.

Tarboton D. G., R. L. Bras and I. Rodriguez-Iturbe, (1988), The Fractal Nature of River Networks, Water Resources Research 24(8):1317-1322.

Bras R. L., Tarboton D. G. and C. Puente, (1988), Hydrologic sampling: A characterization in terms of rainfall and basin properties, Journal of Hydrology, 102:113-135.

Tarboton D. G., R. L. Bras and C. Puente, (1987), Combined hydrologic sampling criteria for rainfall and streamflow, Journal of Hydrology, 95:323-339.

Other written publications, submitted papers, conference proceedings, reports, published software:

Istanbulluoglu, E., D. G. Tarboton, R. T. Pack and C. H. Luce, (2002), "A Sediment Transport Model for Incising Gullies On Steep Topography," Submitted to Water Resources Research.

Luce, C. H. and D. G. Tarboton, (2002), "The Application of Depletion Curves for Parameterization of Subgrid Variability of Snow," Submitted to Hydrological Processes.

Istanbulluoglu, E., D. G. Tarboton, R. T. Pack and C. Luce, (2002), A Probabilistic Approach for Channel Initiation. In Press, Water Resources Research.

Luce, C. H. and D. G. Tarboton, (2001),"Modeling Snowmelt Over an Area: Modeling Subgrid Scale Heterogeneity in Distributed Model Elements," Proceedings of MODSIM 2001, International Congress on Modelling and Simulation, Canberra, Australia, December 10-13, p.341-346.

Luce, C. H. and D. G. Tarboton, (2001),"A Modified Force-Restore Approach to Modeling Snow-Surface Heat Fluxes," Proceedings of the 69th Annual Western Snow Conference, Sun Valley, Idaho.

Istanbulluoglu, E., D. G. Tarboton, R. T. Pack and C. Luce, (2001),"A probabilistic approach for channel initiation," presented at 21st Annual American Geophysical Union Hydrology Days, Fort Collins, Colorado, April 2-5.

Tarboton, D. G. and D. P. Ames, (2001),"Advances in the mapping of flow networks from digital elevation data," in World Water and Environmental Resources Congress, Orlando, Florida, May 20-24, ASCE.

Pack, R. T., D. G. Tarboton and C. N. Goodwin, (2001),"Assessing Terrain Stability in a GIS using SINMAP," in 15th annual GIS conference, GIS 2001, Vancouver, British Columbia, February 19-22.

Luce, C. and D. Tarboton, (2000), "Scaling Up Snowpack Accumulation and Melt Models," Submitted to Water Resources Research.

Prasad, R., D. G. Tarboton, G. N. Flerchinger, K. R. Cooley and C. H. Luce, (2000), "Understanding the Hydrologic Behavior of a Small Semi-Arid Mountainous Watershed," Submitted to Hydrological Processes.

Pack, R. T., D. G. Tarboton and C. N. Goodwin, (2000),"The SINMAP Approach to Terrain Stability Mapping," Western Watersheds; Science, Sense, Strategies; Proceedings of the seventh biennial Watershed Management Council conference, ed. C. W. Slaughter, Universiy of California, Water Resources Center, Centers for Water and Wildland Resources, Riversde, CA.

Tarboton, D. G., (1999), "Spatial Analysis of the Hydrologic Properties of the Landscape, Presentation at GIS Hydro 99, ESRI users Conference pre-conference seminar, July 25. Published on ESRI GIS Hydro 99 CDROM (http://internetcity.crwr.utexas.edu/gis/gishydro99/GisHyd99.htm)

Pack, R. T., D. G. Tarboton and C. N. Goodwin, (1999),"GIS-based landslid susceptibility mapping with SINMAP," Proceedings of the 34th Symposium on Engineering Geology and Geotechnical Engineering, ed. J. A. Bay, p.219-231.

Pack, R. T., D. G. Tarboton and C. N. Goodwin, (1998), "Terrain Stability Mapping with SINMAP, technical description and users guide for version 1.00," Report Number 4114-0, Terratech Consulting Ltd., Salmon Arm, B.C., Canada (www.tclbc.com).

Pack, R. T., D. G. Tarboton and C. N. Goodwin, (1998), "The SINMAP Approach to Terrain Stability Mapping," 8th Congress of the International Association of Engineering Geology, Vancouver, British Columbia, Canada 21-25 September 1998.

Luce, C. H., D. G. Tarboton and K. R. Cooley, (1997),"Spatially Distributed Snowmelt Inputs to a Semi-Arid Mountain Watershed," in Proceedings of the Western Snow Conference, Banff, Canada, May 5-8, 1997.

Tarboton, D. G. and C. H. Luce, (1996), "Utah Energy Balance Snow Accumulation and Melt Model (UEB)," Computer model technical description and users guide, Utah Water Research Laboratory and USDA Forest Service Intermountain Research Station.

Jackson, T. H., D. G. Tarboton and K. R. Cooley, (1996), "A Spatially-Distributed Hydrologic Model for a Small Arid Mountain Watershed," UWRL working paper WP-96-HWR-DGT/002.

Tarboton, D. G., (1995), "Book Review, Physical Hydrology by S Lawrence Dingman," Eos, 76(33): 316.

Neale, C. M. U., D. G. Tarboton, J. J. McDonnell, T. Jackson, G. A. Artan and P. V. Unnikrishna, (1994), "A Spatially Distributed Water Balance based on Physical, Isotopic and Remotely Sensed Data," Final Report under USGS Contract 14-08-0001-G2110, Utah State University.

Tarboton, D. G., (1994),"Measurement and Modeling of Snow Energy Balance and Sublimation From Snow," in Proceedings, International Snow Science Workshop, Snowbird, Utah, October 31 to November 2, Utah Water Research Laboratory working paper no. WP-94-HWR-DGT/002.

Artan, G. A., C. M. U. Neale, L. E. Hipps and D. G. Tarboton, (1995),"Determination of the characteristic length scale of energy balance flux terms using airborne multispectral digital video imagery," in Preprint Volume, American Meteorological Society Conference on Hydrology, Dallas, Texas, January 15-20, 143-146.

Neale, C. M. U., G. A. Artan, C. Hanson and D. G. Tarboton, (1995),"A spatially distributed energy balance model: Development, validation and application," in Preprint Volume, American Meteorological Society Conference on Hydrology, Dallas, Texas, January 15-20, 152-156.

Tarboton, D. G., T. H. Jackson, J. Z. Liu, C. M. U. Neale, K. R. Cooley and J. J. McDonnell, (1995),"A Grid Based Distributed Hydrologic Model: Testing Against Data from Reynolds Creek Experimental Watershed," in Preprint Volume, American Meteorological Society Conference on Hydrology, Dallas, Texas, January 15-20, 79-84.

Unnikrishna, P. V., J. J. McDonnell, D. G. Tarboton, C. Kendall and G. Flerchinger, (1995),"Stable isotope tracing as a tool for testing assumptions in a grid based distributed hydrologic model," in Preprint Volume, American Meteorological Society Conference on Hydrology, Dallas, Texas, January 15-20, 85-90.

Tarboton, D. G., (1994), "The Source Hydrology of Severe Sustained Drought in the Southwestern U.S.," Chapter 1 in Coping with Severe, Sustained Drought in the Southwestern United States, Edited by R. A. Young, Technical completion report submitted to the U.S. Geological Survey under award no. 14-08-0001-G1892, p.1.1-1.48.

Rajagopalan, B., U. Lall and D. G. Tarboton, (1993), "Simulation of Daily Precipitation from a Nonparametric Renewal Model," Working Paper WP-93-HWR-UL/003, Utah Water Research Laboratory.

Tarboton, D. G., (1993),"Fractal River Networks, Where do we stand," in Hydrofractals 93, Ischia, Italy, October 12-15.

Tarboton, D. G., A. Sharma and U. Lall, (1993),"The use of non-parametric probability distributions in streamflow modeling," in Proceedings of the Sixth South African National Hydrological Symposium, ed. S. A. Lorentz et al., University of Natal, Pietermaritzburg, South Africa, September 8-10, 315-327.

Lall, U., B. Rajagopalan and D. G. Tarboton, (1993),"A Nonparametric Renewal Model for Modeling Daily Precipitation," Stochastic and Statistical Methods in Hydrology and Environmental Engineering: An International Conference in Honour of Professor T. E. Unny, University of Waterloo, Waterloo, Ontario, Canada, June 21-23.

Tarboton, D. G., (1992), "Precipitation in Topographically Diverse Regions, Special Session Summary," Eos, April 21: 185.

Tarboton, D. G., M. J. Al-Adhami and D. S. Bowles, 1991,"A preliminary comparison of snowmelt models for erosion prediction," Proceedings Western Snow Conference , Juneau, Alaska.

Cabral, M. C., R. L. Bras, D. Tarboton and D. Entekhabi, (1990), "A distributed, physically-based, rainfall-runoff model incorporating topography for real time flood forecasting," Report no 332, Ralph M. Parsons Laboratory for Hydrology and Water Resource Systems, Department of Civil Engineering, Massachusetts Institute of Technology.

Curtayne P. C. and D. G. Tarboton, (1985), A technique for assessing the economic implications of deferring rehabilitation, Proceedings Annual Transportation Convention (ATC 1985), Vol TI, no. 1.,CSIR, Pretoria, South Africa.

Tarboton D. G., (1985), A tactical planning algorithm for pavement management systems, Draft technical report, NITRR, CSIR, South Africa.

Tarboton D. G. and P. C. Curtayne, (1985), A methodology for the economic evaluation of pavement maintenance and rehabilitation options, Technical report no RP/13, NITRR, CSIR, South Africa.

Theses:

Tarboton D. G., (1989), The analysis of river basins and channel networks using digital terrain data, Sc.D. Thesis, Department of Civil Engineering, Massachusetts Institute of Technology (Also available as Tarboton D. G., R. L. Bras and I. Rodriguez-Iturbe, (Same title), Technical report no 326, Ralph M. Parsons Laboratory for Water resources and Hydrodynamics, Department of Civil Engineering, Massachusetts Institute of Technology, September 1989).

Tarboton D. G., (1987), Hydrologic sampling: A characterization in terms of rainfall and basin properties, M.S. Thesis, Department of Civil Engineering, Massachusetts Institute of Technology (Also available as Tarboton D. G., R. L. Bras and C. E. Puente, (Same title), Technical report no 319, Ralph M. Parsons Laboratory for Water resources and Hydrodynamics, Department of Civil Engineering, Massachusetts Institute of Technology, August 1988).

Conference Presentations and Abstracts:

Woods, R., M. Wild, D. G. Tarboton and R. Henderson, (2002), "A Hydrological Model of New Zealand," Eos Trans. AGU, 83(22): West. Pac. Geophys. Meet. Suppl., Abstract H32A-02. Presentation at AGU Western Pacific Geophysics Meeting, Wellington, New Zealand, July.

Tarboton, D. G., (2002), "Digital Elevation Models and Hydrology," Eos Trans. AGU, 83(22): West. Pac. Geophys. Meet. Suppl., Abstract H41A-06. Presentation at AGU Western Pacific Geophysics Meeting, Wellington, New Zealand, July.

Tarboton, D. G., C. Bandaragoda and R. Woods, (2002), "The use of Spatial and Temporal Data to Estimate Parameter Values of a Physically Based Distributed Model for the Distributed Model Intercomparison Project." Eos Trans. AGU, 83(22): West. Pac. Geophys. Meet. Suppl., Abstract H32A-04. Presentation at AGU Western Pacific Geophysics Meeting, Wellington, New Zealand, July.

Tarboton, D. G., C. Bandaragoda and R. Woods, (2002), "Towards Model Applications Without Calibration - The use of Spatial and Temporal Data to Estimate Parameter Values of Physically Based Distributed Models." Eos Trans. AGU, 83(19): Spring. Meet. Suppl., Abstract H51B-09. Presentation at AGU Spring Meeting, Washington DC, May.

Tarboton, D. G. (2002), "Digital Elevation Models and Hydrology", Presentation made at AGU Hydrology Days Conference in Fort Collins on April 3.

Tarboton, D. G., (2002), "GIS, Hydrololgy and Terrain Analysis using Digital Elevation

Models", Presentation to Utah Chapter of American Society for Photogrammetric Engineering and Remote Sensing, Salt Lake City, March 8.

You, J., D. G. Tarboton and C. H. Luce, (2001), "Spatially Distributed Snowmelt Modeling with the Utah Energy Balance Snowmelt Model," Eos Trans. AGU 82(47) Fall Meet. Suppl., Abstract IP51A-0725.

Tarboton, D. G. and D. R. Maidment, (2001), "National Geospatial Datasets for Hydrology," Eos Trans. AGU 82(47) Fall Meet. Suppl., Abstract H42A-0346.

Istanbulluoglu, E., D. G. Tarboton and R. T. Pack, (2001), "A Sediment Transport Model for Incising Gullies Based On Upland Topographic Controls," Eos Trans. AGU 82(47) Fall Meet. Suppl., Abstract H52B-0416.

Goodwin, C. N. and D. G. Tarboton, (2001), An Ecohydrological Approach for Modeling Vegetation Cover Based Upon Equilibrium Soil Moisture Availability. Poster presented at AGU Chapman Conference on Hillslope Hydrology, Sun River, Oregon, October 8-12.

Loscher, G., D. G. Tarboton, I. Creed and K. Webster, (2001), Soil Moisture Variability in a Small Steep Forested Watershed. Poster presented at AGU Chapman Conference on Hillslope Hydrology, Sun River, Oregon, October 8-12.

Istanbulluoglu, E., D. G. Tarboton, R. T. Pack and C. Luce, (2001), A Probabilistic Approach for Channel Initiation. Presentation at AGU Spring Meeting, Boston, May 29 to June 1.

Tarboton, D. G. and D. Ames, (2001),"Terrain Analysis Using Digital Elevation Models," Presentation at Forest Service 2001 Geospatial Conference, Salt Lake City, 16-19, April.

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